

ELECTRON BOMBARDMENT HEATING APPARATUS AND
TEMPERATURE CONTROLLING APPARATUS AND CONTROL METHOD THEREOF

ABSTRACT OF THE DISCLOSURE

An electron bombardment heating apparatus, in which thermions emitted from filaments 9 are accelerated and ~~impinged~~impinge upon a heating plate 2, so as to heat the heating plate 2, wherein a ~~peripheryperipheral~~ wall of a heated material supporting member 1 having a heating plate as a ceiling thereof is made ~~up with~~of multi-staged ~~peripheryperipheral~~ wall portions 13a and 13b, ~~being piled up~~positioned vertically and having a different ~~in the~~radius thereof, and those ~~peripheryperipheral~~ wall portions 13a and 13b are connected with each other by means of a ring-like horizontal wall 5. With this, thermal stress can be mitigated, which is caused due to ~~the~~a difference ~~of~~in temperature between the lower end portion of the heated material supporting member 1 and the heating plate 2 when heating up the heating plate 2, thereby ~~bringing about~~causing no breakage in the heated material supporting member ~~if~~when conducting heating and cooling upon the heating plate, repetitively.